CLAIMS:

1. A pharmaceutical composition for the treatment of disorders of the anterior segment of the eye comprising an ophthalgestically acceptable carrier and as an active ingredient an agent being high density lipoprotein (HDL).

2. A pharmaceutical composition according to Claim 1, wherein the anterior segment of the eye is the corneal epithelium, stromal conjunctiva, and the glands present in both.

3. A pharmaceutical composition according to Claim 1, wherein the disorders are selected from the group consisting of: mechanical abrasion of the cornea; corneal epithelial defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; chronic edema of cornea with recurrent erosion of epithelium; and conditions following damage of epithelia due to radial keratotomy.

4. A pharmaceutical composition according to Claim 1, wherein the disorders include a decrease in secretion from glands located in the conjunctiva.

5. A pharmaceutical composition according to Claim 4, wherein the disorders are selected from the group consisting of: dry eye and tear film disfunction caused by medication.

6. A pharmaceutical composition according to Claim 1, wherein the disorders are manifested by a slow rate of regeneration of epithelial cells of the anterior segment of the eye.

7. A pharmaceutical composition according to Claim 6, wherein the slow rate of regeneration is caused by old age, or by administration of anti-proliferativ substances.

8. A pharmaceutical composition for the treatment of diseases of the anterior segment of the eye selected from the group consisting of mechanical abrasion of the cornea; corneal epithelial defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; recurrent erosion of epithelium; comprising an ophthalgestically acceptable carriers and as an active ingredient at least one agent selected from the group consisting of:

i. high density lipoprotein (HDL);

ii. phospholipids and/or sphingolipids; and

iii. a composition of matter comprising phospholipids and at least one other lipid component of HDL other than cholesterol and cholestryl-ester.

9. A pharmaceutical composition according to Claim 8, wherein said agent is Lipofundin™

10. A pharmaceutical composition according to Claim 8, wherein said agent is Intralipid™

11. A pharmaceutical composition according to Claim 1 or 8, further comprising albumin.

12. A pharmaceutical composition according to Claim 1 or 8, wherein the HDL is human HDL, bovine HDL, or reconstituted HDL comprising of phospholipids and/or sphinolipids and at least one apolipoprotein.

13. A pharmaceutical composition according to Claim 8 or 12, wherein the phospholipids are selected from the group consisting of: phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, and phosphatidylinosital.

14. A pharmaceutical composition according to Claim 8 or 12, wherein the sphingolipids are sphingomyelins.

15. A pharmaceutical composition according to Claim 8, wherein the other lipid components of HDL are triglycerides and/or glycerol.

16. A pharmaceutical composition according to Claim 12, wherein the apolipoprotein is selected from the group consisting of: Apolipoprotein A-I and Apolipoprotein A-IV or a combination of both apolipoproteins.

17. A pharmaceutical composition according to Claims 1 to 8, further comprising a growth factor, an attachment factor or an extracellular matrix component.

18. A pharmaceutical composition according to Claim 17, wherein the growth factor is selected from the group consisting of: Keratinocyte Growth Factor (KGF/FGF7), Epidermal Growth Factor (EGF) and other growth factors of the FGF family.

19. A pharmaceutical composition according to Claim 17, wherein the attachment factor is selected from the group consisting of: leminin and fibronectin.

20. A pharmaceutical composition according to Claim 17, wherein the extracellular matrix components are selected from the group consisting of: collagen and heparan sulfate proteoglycans.

21. A pharmaceutical composition according to Claims 1 to 8, further comprising an agent capable of providing protection from U.V. radiation.

22. A pharmaceutical composition according to Claim 21, wherein the agent capable of providing protection from U.V. radiation is oxybenzone.

23. A method for the treatment of disorders of the anterior segment of the eye comprising administering to a subject in need of such treatment a composition comprising an agent being high density lipoprotein (HDL).

24. A method according to Claim 23, wherein the anterior segment of the eye is the corneal epithelium, stromal conjunctiva, and the glands present in both.

25. A method according to Claim 23, wherein the disorders are selected from the group consisting of: mechanical abrasion of the cornea; corneal epithelial

defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; chronic edema of cornea with recurrent erosion of epithelium; and conditions following damage of epithelia due to radial keratotomy.

26. A method according to Claim 23, wherein the disorders include a decrease in secretion from glands located in the conjunctiva.

27. A method according to Claim 26, wherein the disorders are selected from the group consisting of: dry eye and tear film disfunction caused by medication.

28. A method according to Claim 23, wherein the disorders are manifested by a slow rate of regeneration of epithelial cells of the anterior segment of the eye.

29. A method according to Claim 28, wherein the slow rate of regeneration is caused by old age, or by administration of anti-proliferative substances.

30. A method for the treatment of diseases of the anterior segment of the eye selected from the group consisting of mechanical abrasion of the cornea; corneal epithelial defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; recurrent erosion of epithelium comprising administering to a subject in need of such treatment at least one agent selected from the group consisting of:

i. high density lipoprotein (HDL);

ii. phospholipids and/or sphingolipids; and

iii. a composition of matter comprising phospholipids and at least one other lipid component of HDL other than cholesterol and cholestryl-ester.

31. A method according to Claim 30, wherein said agent is Lipofundin™

32. A method according to Claim 30, wherein said agent is Intralipid™

33. A method according to Claim 23 or 30, further comprising albumin.

34. A method according to Claim 23 or 30, wherein the HDL is human HDL, bovine HDL, or reconstituted HDL comprising of phospholipids and/or sphinolipids and at least one apolipoprotein.

35. A method according to Claim 30 or 34, wherein the phospholipids are selected from the group consisting of: phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, and phosphatidylinosital.

36. A method according to Claim 30 or 34, wherein the sphingolipids are sphingomyelins.

37. A method according to Claim 30, wherein the other lipid components of HDL are triglycerides and/or glycerol.

38. A method according to Claim 34, wherein the apolipoprotein is selected from the group consisting of: Apolipoprotein A-I and Apolipoprotein A-IV or a combination of both apolipoproteins.

39. A method according to Claims 23 to 30, further comprising administering a growth factor, an attachment factor or an extracellular matrix component.

40. A method according to Claim 39, wherein the growth factor is selected from the group consisting of: Keratinocyte Growth Factor (KGF/FGF7), Epidermal Growth Factor (EGF) and other growth factors of the FGF family.

41. A method according to Claim 39, wherein the attachment factor is selected from the group consisting of: laminin and fibronectin.

42. A method according to Claim 39, wherein the extracellular matrix components are selected from the group consisting of: collagen and heparan sulfate proteoglycans.

43. A method according to Claims 23 to 30, further comprising an agent capable of providing protection from U.V. radiation.

44. A method according to Claim 43, wherein the agent capable of providing protection from U.V. radiation is oxybenzone.

45. Use of high density lipoprotein (HDL) for the preparation of a medicament for the treatment of disorders of the anterior segment of the eye.

46. Use according to Claim 45, wherein the anterior segment of the eye is the corneal epithelium, stromal conjunctiva, and the glands present in both.

47. Use according to Claim 45, wherein the disorders are selected from the group consisting of: mechanical abrasion of the cornea; corneal epithelial defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; chronic edema of cornea with recurrent erosion of epithelium; and conditions following damage of epithelia due to radial keratotomy.

48. Use according to Claim 45, wherein the disorders include a decrease in secretion from glands located in the conjunctiva.

49. Use according to Claim 48, wherein the disorders are selected from the group consisting of: dry eye and tear film disfunction caused by medication.

50. Use according to Claim 45, wherein the disorders are manifested by a slow rate of regeneration of epithelial cells of the anterior segment of the eye.

51. Use according to Claim 50, wherein the slow rate of regeneration is caused by old age, or by administration of anti-proliferative substances.

52. Use of at least one agent selected from the group consisting of:

i. high density lipoprotein (HDL);

ii. phospholipids and/or sphingolipids; and

iii. a composition of matter comprising phospholipids and at least one other lipid component of HDL other than cholesterol and cholestryl-ester;

for the preparation of a medicament for treatment of disorders of the anterior segment of the eye selected from the group consisting of mechanical abrasion of the cornea; corneal epithelial defects created by contact lens wearing; corneal epithelial defects created by spontaneous peeling of the epithelium; corneal damage following photo-refractive keratectomy; injuries caused by chemical substances; injuries caused by ultraviolet light exposure; systemic diseases causing damage to the corneal epithelium and conjunctiva; with recurrent erosion of epithelium.

53. Use according to Claim 52, wherein said agent is Lipofundin™

54. Use according to Claim 52, wherein said agent is Intralipid™

55. Use according to Claim 45 or 52, wherein the HDL is human HDL, bovine HDL, or reconstituted HDL comprising of phospholipids and/or sphinolipids and at least one apolipoprotein.

56. Use according to Claim 52 or 55, wherein the phospholipids are selected from the group consisting of: phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, and phosphatidylinosital.

57. Use according to Claim 52 or 55, wherein the sphingolipids are sphingomyelins.

58. Use according to Claim 52, wherein the other lipid components of HDL are triglycerides and/or glycerol.

59. Use according to Claim 55, wherein the apolipoprotein is selected from the group consisting of: Apolipoprotein A-I and Apolipoprotein A-IV or a combination of both apolipoproteins.

60. A storage medium for the preservation of isolated cornea comprising at least one agent selected from the group consisting of:

i. high density lipoprotein (HDL);

ii. phospholipids and/or sphingolipids; and

iii. a composition of matter comprising phospholipids and at least one other lipid component of HDL other than cholesterol and cholesteryl-ester.

61. A storage medium according to Claim 60, wherein the agent is one or more of the group consisting of:

i. Lipofundin™

ii. Intralipid™

62. A storage medium according to Claims 60 and 61, further comprising albumin.

63. A storage medium according to Claim 60, wherein the HDL is human HDL, bovine HDL, or reconstituted HDL comprising of phospholipids and/or sphinolipids and at least one apolipoprotein.

64. A storage medium according to Claim 60 or 63, wherein the phospholipids are selected from the group consisting of: phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine and phosphatidylinosital.

65. A storage medium according to Claim 60 or 63, wherein the sphingolipids are sphingomyelin.

66. A storage medium according to Claim 60, wherein the other lipid components of HDL are triglycerides and/or glycerol.

67. A storage medium according to Claim 63, wherein the apolipoprotein is selected from the group consisting of Apolipoprotein A-I and Apolipoprotein A-IV or a combination of both apolipoproteins.